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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,468	09/28/2000	John Bryan Ibbotson	GB919990081US1/1751P	8913
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Sawyer Law Group LLP P O Box 51418 Palo Alto, CA 94303			EXAMINER PILLAI, NAMITHA	
			ART UNIT 2173	PAPER NUMBER
DATE MAILED: 03/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/675,468

Applicant(s)

IBBOTSON ET AL.

Examiner

Namitha Pillai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The Examiner acknowledges Applicant's submission on 12/15/05. Based on the arguments provided related to the filing data of U. S. Patent No. 6, 823, 495 B1 (Vedula et al.), herein referred to as Vedula, another prior art reference with a valid filing data prior to the current application's foreign filing data has been used for the following 35 U. S. C. 103 rejection. Claims 1-9 and 11-20 are rejected.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-6, 9 and 11-15, <sup>18-20 are</sup> rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6, 243, 858 B1 (Mizoguchi et al.), herein referred to as Mizoguchi and U. S. Patent No. 6, 748, 374 B1 (Madan et al.), herein referred to as Madan. RJ

Referring to claims 1 and 18-20, Mizoguchi discloses a tool for graphically defining an expression with a graphic user interface (GU1) component with means for responding to user input for generating a graphic definition of the expression by defining a plurality of data structures (Figures 6 and 13), wherein Figure 6 discloses the creation of an initial data structure and wherein Figure 13 further depicts two distinct data structures wherein two are defined based on the use of a conditional statement.

Mizoguchi discloses lists with a plurality of items that are associated with a respective node as seen on Figure 11. Figure 11 of Mizoguchi also clearly discloses an input data structure and at least one other tree structure representing an output data structure wherein any associated list item defines a formatting definition, used for the graphic expression. Mizoguchi discloses an expression generator component adapted to read the graphic definition of the expression provided by a user through the GUI component, with the expression generator analyzing the graphic definition and generating an expression based on the structure of the data structure and any list items associated with respective nodes of the data structure (Figure 23), wherein the grid representation which is the graphic definition is executed and the result of the execution is outputted, this involving analyzing and generating of an expression from the graphic representation. Mizoguchi does not clearly disclose that the multiple structures referred to represent tree structures that comprise a hierarchical series of nodes. Madan discloses an expression generator system that uses a tree structure with hierarchical series of nodes to generate expressions especially related to query expressions (Figures 14A, 14B and 15). It would have been obvious for one skilled in the art, at the time of the invention to learn from Madan to use the means of tree structures that contain hierarchical nodes. Mizoguchi has clearly taught in the role of multiple structures as is taught by input and output data structures where, Madan further teaches that these structures can be represented as a hierarchical series of nodes. Both Mizoguchi and Madan also teach the generation of an expression through data structures, wherein examination and generation from this examination of tree structure of an expression

would be efficient using a tree structure with hierarchical nodes. Parsing of such a tree structure would be time efficient to access the necessary information in less time.

Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Madan to disclose the use of tree structures that contain a hierarchical series of nodes.

Referring to claim 2, Mizoguchi and Madan disclose that the plurality of nodes are configured for a database query (Madan, column 4, lines 33-40).

Referring to claim 4, Mizoguchi discloses the nodes comprise leaf and branch nodes, the branch nodes representing complex structured fields (Figure 14B) and the leaf nodes representing simple fields comprising strings (Figure 9B).

Referring to claim 5, Mizoguchi discloses each list item comprises an expression "DATA RECORD PROCESSING" section, Figure 11).

Referring to claim 6, Mizoguchi discloses that the GUI component is adapted to allow a user to define a tree structure representing an input data structure wherein any associated list item defines a filtering constraint, wherein the constraint is processed by the data record processing section (Figure 11).

Referring to claim 9, Mizoguchi discloses allowing a user to graphically link two or more nodes, wherein "Record Item 1" and "Record Items 4-6" within the input tree structures generates a logical expression, wherein as seen from the input tree to the Data Record Processing section which holds the expressions, the nodes are limited to equality, wherein the values of these nodes are equal to each other and do not change (Figure 11).

Referring to claim 11, Mizoguchi discloses allowing a user to define an input tree structure, wherein based on the user's inputting, the input tree structure and the output tree structure are defined, each having the associated lists, with the list items for the output tree structure identifying a node of the input tree structure (Figure 11).

Referring to claim 12, Mizoguchi discloses displaying a list for an output tree to the left of the tree (Figure 11).

Referring to claim 13, Mizoguchi discloses is adapted to allow a user to define a list item with a free variable representing the associated tree structure node within the graphical definition, wherein the variable is "Record Items 1-8" in Figure 11.

Referring to claim 14, Mizoguchi discloses a node represented by a wildcard symbol, the wildcard symbol representing the node and all otherwise undefined substructures of the node, the node being "Record Item 9" which is not defined in the Processing Section, as seen in Figure 11.

Referring to claim 15, Mizoguchi discloses defining a structure comprising a branch node having a sub-structure comprising one or more defined nodes (Figure 14B) and a node represented by a wildcard symbol (Figure 11).

3. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi, Madan and U. S. Patent No. 6, 434, 545 B 1 (MacLeod et al), herein referred to as MacLeod.

Referring to claim 3, Mizoguchi and Madan do not disclose the expression is an SQL3 expression (MacLeod, column 1, lines 22-25). McLeod discloses that the expression is an SQL3 expression (column 1, lines 22-25). It would have been obvious

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for one skilled in the art, at the time of the invention to learn from McLeod to disclose that the query expression is an SQL3 expression. Mizoguchi and Madan have already taught that the expression generated can be a database query in addition to teachings of expressions specifically representing SQL statements (column 4, lines 33-40).

Hence, it would have been obvious for one skilled in the art, at the time of the invention to learn from McLeod that the query expression is an SQL3 expression.

Referring to claim 16, Mizoguchi and Madan do not disclose analyzing through a grammatical definition. MacLeod discloses that the analyzing means is cooperable with a grammatical definition of the graphic definition to generate the expression, wherein the graphic expression is used to generate the expression based on a grammatical definition (Figures 5 and 10). It would have been obvious for one skilled in the art at the time of the invention to learn from MacLeod to have analyzing means that is cooperable with a grammatical definition of the graphic definition to generate the expression.

Mizoguchi discloses taking a graphical definition to generate an expression and analyses of this graphic definition to determine the execution process. It is inherent that a grammatical definition, included, as instructions would be used to carry out the actions of the process created by the grammatical definition. Furthermore, one skilled in the art, at the time of the invention would have been motivated to learn from MacLeod to clearly state that in fact grammatical definitions are used during the analysis step to go from the graphic definition to the generated expression.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi, Madan and U. S. Patent No. 5,555,367 (Premerlani et al.), herein referred to as Premerlani.

Referring to claim 7, Mizoguchi and Madan discloses that more than one tree structure does exist but does not disclose that these input structures would be linked based on the nodes within these structures. Premerlani discloses allowing users to define two tree structures, each having an associated list with at least one list item associated with a first node of a first input tree identifying a second node of a second input tree structure from which an expression joining the two input tree on the nodes are generated (column 1, lines 25-35). Premerlani discloses that the idea of joining two structures is common through querying and is implemented in query languages, as would be the case when an expression joining the two structures is generated. It would have been obvious for one skilled in the art at the time of the invention to learn from Premerlani for means to join two of the data structures that are referred to in Mizoguchi and Madan. Mizoguchi and Madan clearly discloses the linking of input tree structures, wherein the input tree structures of the various modules represented in the graphic presentation and used for creating this graphic presentation must clearly be linked to each other in order for the proper input information and output information to enter and leave each individual modules. This implementation gives the system more flexibility, wherein users can link more than one structure and with Premerlani go further by using data within these structures providing greater depths for working with the data, wherein the specific data within these trees are used for more clearly showing the linking of the

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data structures. Hence, one skilled in the art, at the time of the invention would have been motivated to learn from Premerlani for means for linking the nodes of more than tree structure.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi, Madan and U. S. Patent No. 6,535,883 B I (Lee et al.).

Referring to claim 8, Mizoguchi and Madan do not disclose input tree structures with two or more associated lists. Lee discloses as seen in Figure 15, the GUI component adapted to allow a user to define an input tree structure having two or more associated lists, at least one list item from each list comprising an expression from which said expression generator generates a logical OR expression. It would have been obvious for one skilled in the art at the time of the invention to learn from Lee to use the association of the multiple links in an input tree structure with the items comprising expressions generating a logical OR expression. Mizoguchi and Madan would benefit from the use of multiple lists, wherein these lists would hold more information, which would be in depth within one tree structure. Hence, it would have been obvious for one skilled in the art, at the time of the invention to learn from Lee to disclose to use the association of the multiple links in an input tree structure with the items comprising expressions generating a logical OR expression.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi, Madan and further in view of U. S. Patent No. 6,476,833 B 1 (Moshfeghi), herein referred to as Moshfeghi.

Referring to claim 17, Mizoguchi and Madan do disclose that the nodes comprise a filter (Mizoguchi, Figure 11) but do not disclose that it filters XML messages.

Moshfeghi discloses the filtering of XML documents (column 3, line 43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mizoguchi and Madan's invention such that there were a means for filtering XML messages. XML's filtering process according to Moshfeghi is done to parse the content of messages to locate all the linking information for subsequent processing. Mizoguchi and Madan would need a means for processing the messages concerning the queries submitted by the user. Hence, one skilled in the art, at the time of the invention would be motivated to learn from Moshfeghi to disclose a means for filtering XML documents.

### ***Response to Arguments***

7. Applicant's arguments, filed 10/31/05, with respect to the use of the prior art Vedula have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Madan.

8. Applicant's arguments concerning Mizoguchi's teachings have been fully considered but they are not persuasive.

Mizoguchi teaches the use of multiple data structures including data structures that are represented of various conditional possibilities where based on two distinct conditions, there are two data structures. Furthermore, multiple data structures are used during the expression generation process including the use of input and output data structures that contain further information for expression generation. Mizoguchi

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may not clearly teach the use of a hierarchical series of nodes for storing of information for generation of an expression but that teaching is clearly taught in Madan with both inventions of Madan and Mizoguchi teaching use of data structures for generating expressions. Both inventions have clearly shown using data structures for holding formatting definition data for generating expressions with Madan further teaching the expressions being generated related to query functions.

### ***Conclusion***

9. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach the method for using data structures for expression generation.

Responses to this action should be submitted as per the options cited below: The United States Patent and Trademark Office requires most patent related correspondence to be: a) faxed to the Central Fax number (571-273-8300) b) hand carried or delivered to the Customer Service Window (located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), c) mailed to the mailing address set forth in 37 CFR 1.1 (e.g., P.O. Box 1450, Alexandria, VA 22313-1450), or d) transmitted to the Office using the Office's Electronic Filing System.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (571) 272-4054. The examiner can normally be reached on 8:30 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Namitha Pillai  
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March 6, 2006



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